

IN THE CLAIMS:

Please amend claims 1 to 34 as follows.

1. (Currently Amended) A method of identifying at least one [or more objects] object, particularly teeth, in a digitized X-ray image, [characterized in that] comprising, specifying the areas depicting the [possible object(s)] are specified object, using image-processing algorithms, by [segmentation and/or] one of segmenting and edge detection of the X-ray image, and that these areas are, for further specification [thereof linked] of said areas linking, linked by computation to those image parameters of the X-ray apparatus which are used for making the X-ray image.

2. (Currently Amended) A method as defined in claim 1, [characterized in that] wherein the apparatus-specific parameters are linked to parameters of a non-patient-related tooth data bank, in order to obtain probable actual geometrical positions across the areas depicting the possible [object(s)] object.

3. (Currently Amended) A method as defined in claim 1, [or claim 2, characterized in that] comprising the further step of clustering of recognized areas [is] carried out prior to said linking to the apparatus-specific parameters.

4. (Currently Amended) A method as defined in [any one of claims 1 to 3, characterized in that] claim 1, comprising the further step of linking additionally

specific parameters [are linked] by computation for further specification of the areas depicting the possible [object(s)] object.

5. (Currently Amended) A method as defined in [the previous claim, characterized in that] claim 1, wherein position data, trajectories, and starting and finishing points of the X-ray apparatus are taken into account during the computation.

6. (Currently Amended) A method as defined in any [one or more of the previous claims, characterized in that] claim 1, wherein anatomic patient characteristics including [such as] race, age, sex, size, weight, and/or previous treatments are taken into account during the computation.

7. (Currently Amended) A method as defined in [any one or more of the previous claims, characterized in that] claim 1, wherein the user is presented with proposals concerning the at least one recognized [objects] object, which proposals can be interactively edited or confirmed.

8. (Currently Amended) A method as defined in [any one or more of the previous claims, characterized in that the thus] claim 1, wherein the determined information on the [objects] object is stored separately in a data bank and can be called on for re-use.

9. (Currently Amended) A [system] system for the identification of objects, [particularly] including teeth, in a digitized X-ray image, comprising

- an input and output device for [the] interactive control of the system, and
- a processing unit which has access to the digitized X-ray image and has access to apparatus-specific information concerning the X-ray apparatus and which delimits the [object] objects in the digitized X-ray image on the basis of said information and also by one of segmentation and[or] edge detection.

10. (Currently Amended) A system as defined in claim 9, [characterized in that] wherein the processing unit [has access] is accessible to a non-patient-related tooth data bank.

11. (Currently Amended) A system as defined in claim 9 [or claim 10, characterized in that] , wherein the processing unit [exhibits] has means for clustering the areas existing after segmentation and[or] edge detection.

12. (Currently Amended) A system as defined in [one or more of claims 9 to 11, characterized in that] claim 9, wherein the processing unit [has access] is accessible to patient-specific information.

13. (Currently Amended) A system as defined in [one or more of claims 9 to 12, characterized in that] claim 9, wherein means are provided for submitting a proposal to [the] a user, which [he] user can accept, reject, or modify.

14. (Currently Amended) A system as defined in [one or more of claims 9 to 13, characterized by] claim 9, further comprising a computer interface to the X-ray apparatus, via which the apparatus-specific data [can be accessed] is accessible.

15. (Currently Amended) A system as defined in [any one or more of the previous claims 9 to 14, characterized in that] claim 9, wherein apparatus-specific parameters including [such as] position data, trajectories, and starting and finishing points of the X-ray apparatus [can be called on] are provided for inclusion in the computation.

16. (Currently Amended) A system as defined in [one or more of claims 9 to 15, characterized in that] claim 9, wherein anatomic patient characteristics including [such as] race, age, sex, size, weight and/or previous treatments are present in a data bank and are taken into consideration during the computation.

17. (Currently Amended) A system as defined in [any one or more of the previous claims, characterized in that] claim 1, wherein statistical data, [such as] including the ratio of the individual anatomic dimensions to each other, are [placed] included in a data bank and are taken into account during the computation.

18. (Currently Amended) A system as defined in [any one or more of the previous claims, characterized in that] claim 1, wherein the system [is] comprises a PC controlled by software.

19. (Currently Amended) A system for assigning information to objects, [particularly] including teeth, which are specified in one of a digitized X-ray image [or] and a schematic diagram, comprising

- an input and output device for interactive control of the system,
- a storage area, in which the X-ray image or the schematic diagram is placed, object-labelling information being assigned to the X-ray images or the schematic [diagrams] diagram,
- a second storage area, in which information concerning the objects is placed, references between the objects and the object-labelling information being stored,
- a processing unit which controls accepting, deleting, and/or accessing operations in the storage areas and which manages references, said operations being preferably initiated via the input device and displayed on the output device.

20. (Currently Amended) A system as defined in claim 19, [characterized in that] wherein the output device is capable of showing the objects [are shown] optically

high-lighted [on the output device and] such that the objects can be further selected in order to retrieve the saved information.

21. (Currently Amended) A system as defined in claim 20, [characterized in that when an object is selected] wherein the output device enables, access to further branched information, if present, [is enabled] when a object is selected.

22. (Currently Amended) A system as defined in [any one of claims 19 to 21, characterized in that] claim 19, wherein the second storage area enables the references [are] to be managed in the form of links positioned either directly near the object and/or directly near the information and/or [are] to be managed separately.

23. (Currently Amended) A system as defined in [one or more of claims 19 to 22, characterized in that] claim 19, wherein the output device [is] comprises a visual display unit and the further information is capable of being displayed in one of an automatically opening display field including a [(]pop-up window[)] or] and the further information leads to a new screen build-up.

24. (Currently Amended) A system as defined in [one or more of claims 19 to 23, characterized in that] claim 23, wherein the [other] further information [is] comprises one of diagnostic and[/or] treatment information and[/or] other X-ray images, [particularly] including of details.

25. (Currently Amended) A system as defined in [any one or more of claims 19 to 25, characterized by] claim 19, further comprising a computer interface to an X-ray apparatus, which [X-ray apparatus] transmits, via the computer interface, information in the form of data for representation as X-ray images, [this] information in the form of data being deposited in a third storage area and a reference to an object being saved to a fourth storage area.

26. (Currently Amended) A system as defined in [any one or more of claims 19 to 25, characterized in that] claim 25, wherein the information [can be] in the form of data is capable of being hierarchically arranged over a [number] plurality of levels.

27. (Currently Amended) A system as defined in [any one or more of claims 19 to 26, characterized by] claim 19, further comprising means allowing for manual specification of objects by selection of a specific area of the X-ray image.

28. (Currently Amended) A system as defined in [any one or more of claims 19 to 27, characterized by the] claim 19, further comprising a functionality of a data bank system.

29. (Currently Amended) A system as defined in [any one or more of claims 19 to 28, characterized by the features of] claim 19, further comprising a system for identification of objects, [particularly] including teeth, in a digitized X-ray image, as defined in [any one or more of the previous claims] claim 1.

30. (Currently Amended) A method of assigning information to objects, [particularly] including teeth, which have been specified in one of a digitized X-ray image [or] and a schematic diagram representation, comprising

- a first step, in which the one of the digitized X-ray image [or] and the schematic diagram is made,
- a second step, in which specification of the objects, if not already specified, is carried out one of manually [or] and automatically,
- a third step, in which [that object] one of the objects is selected for which further information is to be saved, accessed, or deleted,
- and a fourth step, in which
 - a) when an interrogation operation is carried out, a reference is followed which has been deposited in relation to the object, which reference is used to determine what information is to be shown,
 - b) when a deleting operation is carried out, a reference is followed which has been deposited in relation to the object, which reference and/or the information is deleted,

c) when a storage operation is carried out, an object is selected, a storage area for the information is allocated, and a storage area for the reference is allocated, in order that the new information and the corresponding reference can be saved to these storage areas.

31. (Currently Amended) A method as defined in claim 31, [characterized in that] wherein following specification of the object, data for making digital images are received from the X-ray apparatus, which data are automatically assigned to the specified object.

32. (Currently Amended) A method as defined in [any one or more of claims 30 to 31, characterized in that] claim 30, wherein the information is in the form of graphical markings which can be placed over the images as an overlay.

33. (Currently Amended) A method as defined in [any one or more of claims 30 to 32, characterized in that] claim 30, wherein areas of the objects can be specified to which information can be assigned.

34. (Currently Amended) A method as defined in [any one or more of claims 30 to 33, characterized in that] claim 30, wherein pop-up menus relating to the individual objects can be accessed.